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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,731	09/14/2000	Daniel M. Jensen	0818.ACB.PT	2113

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EXAMINER
DAVIS, ROBERT B

ART UNIT	PAPER NUMBER
1722	7

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Response Due
4-16-02

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/661,731	JENSEN, DANIEL M.	
	Examiner	Art Unit	
	Robert B. Davis	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *47-71* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *47-54,58-68,70 and 71* is/are rejected.

7)☒ Claim(s) *55-57 and 69* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4-6* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 70 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 70 is indefinite for being inferential as "said first motor" on line 3 of the claim lacks antecedent basis. It is suggested that claim 70 be amended to depend upon claim 69.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 47-54 and 58-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schubert et al (Re. 32,673: see figures 1, 2, 6, 9; column 4, lines 15-44; col. 6, lines 3-16; col. 7, line 57 to col. 8, line 33 and col. 10, lines 30-61) taken together with Stone (UK specification 359,086: figures 1-3; page 1, lines 20-25, 53-78 and 91-98 and page 2, lines 20-33 and lines 79-84) and Drostholm et al (4,050,865: see figures 1-11 and 39; column 5, lines 13-35 and column 17, line 35 to column 18, line 30).

Schubert et al disclose an apparatus for making lightweight concrete building units comprising: a mold (20) for receiving a batch of lightweight cement slurry therein and for forming at least one building unit, an ingredient measuring apparatus (column 4, lines 15-18), a cement mixing apparatus (3) for receiving the plurality of ingredients, and a slurry delivery apparatus (51) which moves on rails (59) between a filling station for the container (51) and a filling station for the mold (20), see column 10, lines 52-61. The molds are heated (column 6, lines 3-11). The reference discloses compressing of the lightweight foam mixture in the mold (column 4, lines 26-44). The reference does not disclose a movable mixer for feeding the concrete mixture to the molds. The reference does not disclose an ingredient measuring apparatus for measuring each of the ingredients to form the batch.

Stone discloses a concrete supplying apparatus for a plurality of molds comprising: a screw conveyor (5) inside a trough (4) which is reciprocated back and forth and side to side by means of two sets of rails (3 and 43). The reference states that the distributor can be located at a mixture filling station (back of rails 3) and then moved to a forward location on the rails to feed a mold. Then the distributor is moved along rails (43) to a further mold charging position (see page 2, lines 21-33 and 79-84)

Drostholm et al disclose a brick press comprising: hoppers (37, 40) for feeding ingredients to a mixer (42) by means of weighing equipment (41) such that the mixer receives materials in the appropriate proportions (column 5, lines 13-15). The reference further discloses a hopper (50), which has a reciprocating slide (162) to feed material into a measuring device (71c) as shown in figure 39.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of Schubert et al by using a reciprocating mixer as disclosed by Stone as Stone discloses using the mixer to avoid using chutes or hoppers to allow feeding of controlled quantities of material to a mold from a concrete mixer such that the distribution of the plastic mixture is controlled. It would have been further obvious to modify Schubert et al by using an ingredient measuring device for measuring individual ingredients fed to a mixer as disclosed by Drostholm et al for the purpose of accurately feeding ingredients into a mold such that the products have repeatable properties due to the use of the individually controlled feeding. In regards to claim 54, it would have been further obvious to use an electronic scale to control the weight within a desired precision as such was well known in the art for such purpose. In regards to claim 59, Drostholm et al discloses a control system for the operation of the apparatus and it would have been obvious to one of ordinary skill in the art to provide a computer as a part of the control system as well known to those of ordinary skill in the art.

5. Claims 62-65, 67, 68 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schubert et al (Re. 32,673: see figures 1, 2, 6, 9; column 4, lines 15-44; col. 6, lines 3-16; col. 7, line 57 to col. 8, line 33 and col. 10, lines 30-61) taken together with Stone (UK specification 359,086: figures 1-3; page 1, lines 20-25, 53-78 and 91-98 and page 2, lines 20-33 and lines 79-84), Drostholm et al (4,050,865: see figures 1-11 and 39; column 5, lines 13-35 and column 17, line 35 to column 18, line 30) and Davis, Jr. (4,836,762: figure 17 and column 15, lines 4-17).

Schubert et al disclose an apparatus for making lightweight concrete building units comprising: a mold (20) for receiving a batch of lightweight cement slurry therein and for forming at least one building unit, an ingredient measuring apparatus (column 4, lines 15-18), a cement mixing apparatus (3) for receiving the plurality of ingredients, and a slurry delivery apparatus (51) which moves on rails (59) between a filling station for the container (51) and a filling station for the mold (20), see column 10, lines 52-61. The molds are heated (column 6, lines 3-11). The reference discloses compressing of the lightweight foam mixture in the mold (column 4, lines 26-44). The reference does not disclose a movable mixer for feeding the concrete mixture to the molds. The reference does not disclose an ingredient measuring apparatus for measuring each of the ingredients to form the batch.

Stone discloses a concrete supplying apparatus for a plurality of molds comprising: a screw conveyor (5) inside a trough (4) which is reciprocated back and forth and side to side by means of two sets of rails (3 and 43). The reference states that the distributor can be located at a mixture filling station (back of rails 3) and then moved to a forward location on the rails to feed a mold. Then the distributor is moved along rails (43) to a further mold charging position (see page 2, lines 21-33 and 79-84)

Drostholm et al disclose a brick press comprising: hoppers (37, 40) for feeding ingredients to a mixer (42) by means of weighing equipment (41) such that the mixer receives materials in the appropriate proportions (column 5, lines 13-15). The reference further discloses a hopper (50), which has a reciprocating slide (162) to feed material into a measuring device (71c) as shown in figure 39.

Davis, Jr. discloses a concrete block or brick apparatus having a mixer (38) having a plurality of mixing paddles (156) for mixing the concrete ingredients to form a slurry.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of Schubert et al by using a reciprocating mixer as disclosed by Stone as Stone discloses using the mixer to avoid using chutes or hoppers to allow feeding of controlled quantities of material to a mold from a concrete mixer such that the distribution of the plastic mixture is controlled. It would have been further obvious to modify Schubert et al by using an ingredient measuring device for measuring individual ingredients fed to a mixer as disclosed by Drostholm et al for the purpose of accurately feeding ingredients into a mold such that the products have repeatable properties due to the use of the individually controlled feeding. It would have been further obvious to modify the combination including Schubert et al and Stone by using a mixer having paddles as disclosed by Davis, Jr. as such was a well known alternative mixer to the screw of Stone which allows for mixing such that the mixture is discharged via a slot in the bottom of a vessel. In regards to claim 68, it would have been further obvious to use an electronic scale to control the weight within a desired precision as such was well known in the art for such purpose. In regards to claim 71, Drostholm et al discloses a control system for the operation of the apparatus and it would have been obvious to one of ordinary skill in the art to provide a computer as a part of the control system as well known to those of ordinary skill in the art.

6. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schubert et al taken together with Stone, Drostholm et al and Davis, Jr. as applied to claims 62-68 and 71 above, and further in view of Jensen (5,775,047: column 4, lines7-53).

The combination discloses all claimed features except for the means for heating which causes the foam to collapse at the surface of the mold.

Jensen discloses a lightweight concrete block molding machine, which includes means for heating such that the mold breaks bubbles in the slurry adjacent the mold.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of Schubert et al by using heating means which causes the bubbles in the slurry adjacent the mold surface to break for the purpose of forming a smooth, dense outer block surface.

Allowable Subject Matter

7. Claims 55-57 and 69 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claim 70 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art of record teach or suggest a lightweight concrete molding apparatus as claimed in claim 47 or 62 having a concrete slurry mixing device having a

vessel rotatably mounted proximate a longitudinal axis thereof to a support frame and including a first motor for rotating the vessel to dump a batch and a second motor for rotating mixing paddles within the vessel. Stone discloses a reciprocating mixer and Davis, Jr. discloses a mixer with paddles, but none of the prior art of record teach or suggest a slurry mixing apparatus as claimed in claims 55 or 69.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert B. Davis whose telephone number is 703-308-2625. The examiner can normally be reached on Monday-Thursday 9:00-6:30 and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on 703-308-3322. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Robert B. Davis
Primary Examiner
Art Unit 1722
1/11/02